

Installation Guide

Over The Range Microwave Oven

Contents

Introduction

Important Safety Information

Installation Hardware

Mounting Space

Wall Construction

Hood Exhaust duct

Ventilation System Instruction

A. Horizontal ventilation system

B. Vertical ventilation system

C. Recirculation ventilation system

Checklist for Installation

Save this Guide with your Use & Care Manual

Introduction

Your Over-the-Range microwave oven comes complete with an installation instruction kit which contains the following three pieces of information required to install it.

I. This installation instruction booklet, complete with diagrams on preparing your cabinets and microwave oven for installation.

II. The Top Cabinet Template, used to locate the power cord clearance hole, cabinet mounting holes and the vertical exhaust location.

III. Instead of The Wall Mount Template, Wall Mounting Plate, used to locate the mounting plate holes and to locate the horizontal exhaust location. Please read all of the instructions thoroughly before installing your microwave oven.

NOTE:
IT IS RECOMMENDED
THAT TWO PEOPLE
INSTALL THIS PRODUCT.

IMPORTANT:
KEEP INSTRUCTIONS FOR
LOCAL ELECTRICAL
INSPECTOR'S USE.

Important Safety Information

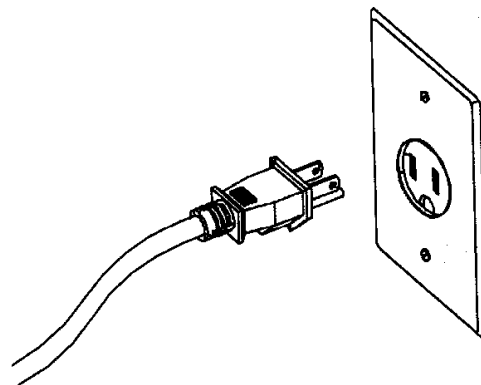
Grounding Instructions

This appliance must be grounded. In the event of an electrical short circuit, grounding reduces the risk of the electric shock by providing an escape wire for the electric current. This appliance is equipped with a cord having a grounding wire with a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded.

WARNING - Improper use of the grounding can result in a risk of electric shock.

Consult a qualified electrician or serviceman if the grounding instructions are not completely understood, or if doubt exists as to whether the appliance is properly grounded, and either:

1) If it is necessary to use an extension cord, use only a 3-wire extension cord that has a 3-blade grounding plug, and a 3-slot receptacle that will



accept the plug on the appliance. The marked rating of the extension cord shall be equal to or greater than the electrical rating of the appliance, or Do not use an extension cord.

2) If the power supply cord is too short, have a qualified electrician or serviceman install an outlet near the appliance.

Safety Instructions

This product requires a three prong grounded receptacle. The installer must perform a ground continuity check on the power outlet box before beginning the installation to insure that the outlet box is properly grounded. If not properly grounded, or if the outlet box does not meet the electrical requirements noted, (under ELECTRICAL REQUIREMENTS), a qualified electrician should be employed to correct any deficiencies.

CAUTION: FOR PERSONAL SAFETY, REMOVE HOUSE FUSE OR OPEN CIRCUIT BREAKER BEFORE BEGINNING INSTALLATION TO AVOID SEVERE OR FATAL SHOCK INJURY. CAUTION: FOR PERSONAL SAFETY, THE MOUNTING SURFACE MUST BE CAPABLE OF SUPPORTING THE CABINET LOAD, IN ADDITION TO THE ADDED WEIGHT OF THIS 85 POUND PRODUCT, PLUS ADDITIONAL OVEN LOADS OF UP TO 50

POUNDS OR A TOTAL WEIGHT OF 135 POUNDS.

CAUTION: FOR PERSONAL SAFETY THIS PRODUCT CANNOT BE INSTALLED TO CABINET ARRANGEMENT'S SUCH AS AN ISLAND OR A PENINSULA. IT MUST BE MOUNTED TO BOTH A TOP CABINET AND A WALL.

Electrical Requirements

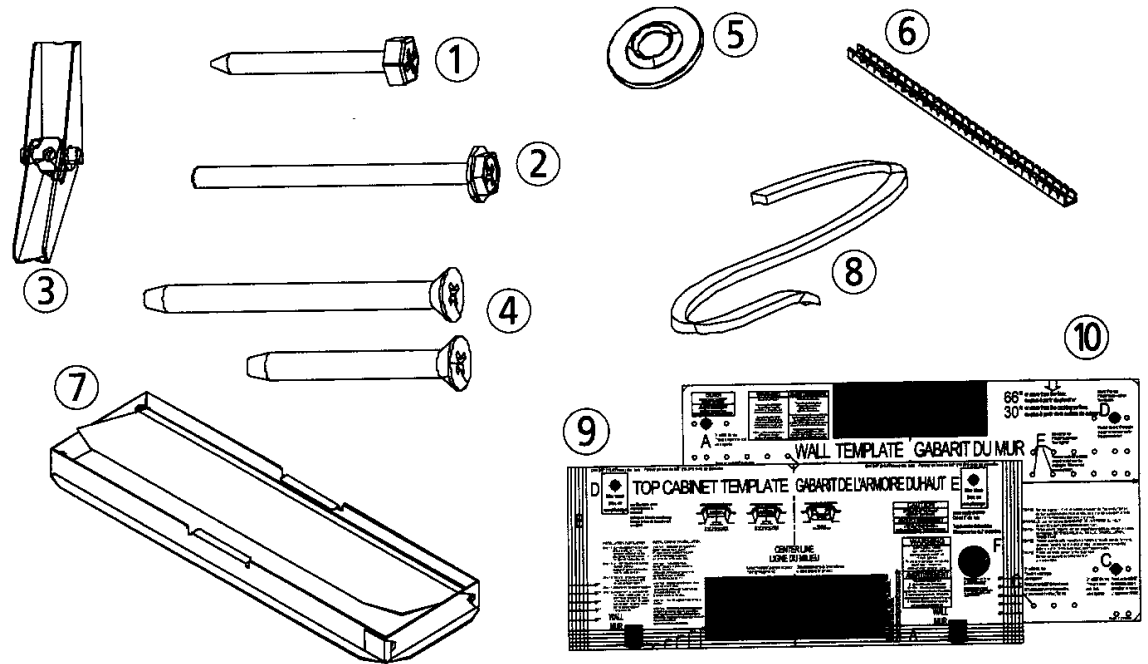
Product rating is 120 volts AC, 60Hertz, 14.6 amps, and 1.60 kilowatts. This product must be connected to a supply circuit of the proper voltage and frequency. Wire size must conform to the requirements of the National Electric Code or the prevailing local code for this kilowatt rating. The power supply cord and plug should be brought to a separate 20ampere branch circuit single grounded receptacle. The outlet box should be located near the cord entry point. The outlet box and supply circuit should be installed by a qualified electrician and conform to the National Electric Code or the

Power supply cord

- a) A short power-supply cord is provided to reduce the risks resulting from becoming entangled in or tripping over a longer cord.
- b) Longer cord sets or extension cords are available and may be used if care is exercised in their use.
- c) If a long cord or extension cord is used:
 - 1) The marked electrical rating of the cord set or extension cord should be at least as great as the electrical rating of the appliance.
 - 2) The extension cord must be a grounding type 3-wire cord, and
 - 3) The longer cord should be arranged so that it will not drape over the counter top or tabletop where it can be pulled on by children or tripped over unintentionally.

This over-the-range oven was designed for use over ranges no wider than 30 inches. It may be installed over both gas and electric cooking equipment.

Installation Hardware



The following is a list of parts you may need for installing your Over-the-Range microwave oven. You will find them packaged inside the microwave cooking cavity. Remove all parts from the oven cavity and compare them with the parts list and illustration to be sure that none are missing. Use this time to become familiar with each piece.

Parts List

1. Lag screws 1/4" x 2" (3 EA)
2. Toggle Bolts 3" (3 EA)
3. Spring Loaded Toggle Nuts (3 EA)
4. Cabinet Mounting Bolts 1/4" x 3-1/8" (3 EA), 1/4" x 2" (3 EA)
5. Washers 3/4" (3 EA)
6. Grommet
7. Damper
8. Foam Tape (2 EA)
9. Top Cabinet Template
10. Wall Template

Tools

The following tools may be needed for installation of your microwave oven.
Phillips screwdrivers, Electric Drill Motor, 1/2" & 5/8" Wood Bits & 3/16" Drill Bit, Saw to cut exhaust opening, (if needed) or Jig Saw, Tin Snips (if needed), Pencil, Tape Measure, Paper Tape & Duct Tape.

Mounting Space

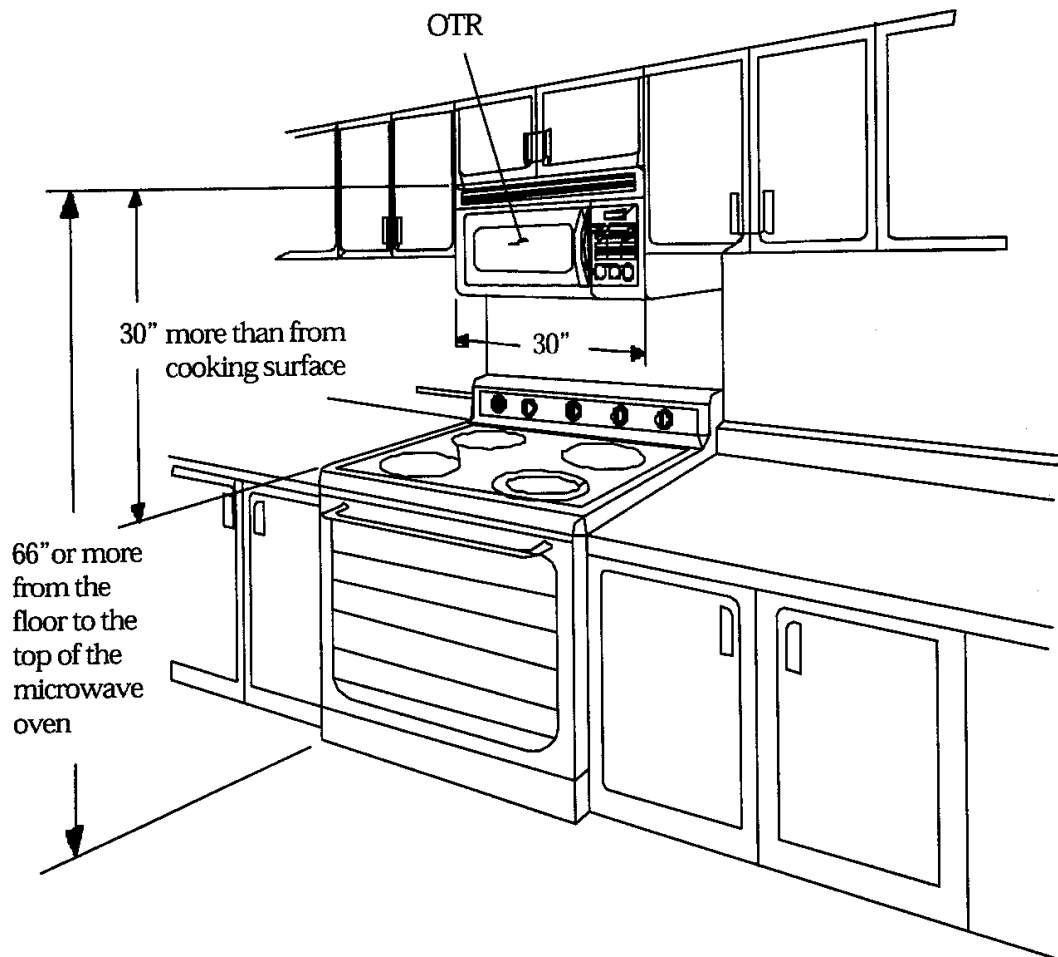
Your Over-the-Range microwave oven requires mounting space on a wall as shown.

1. A minimum of 30" between wall hung side cabinets is required for installation. Make sure the bottom edge of the top cabinet is at least 66" from the floor and 30" from the cooking surface.

2. For easier access to the hood lamp, the bottom of the microwave oven should be at least 2" above the range backsplash.

3. If you are going to vent your microwave oven to the outside, see exhaust duct preparation.

4. Designed to be installed in 30" wide cabinet opening.



Wall Construction

Your Over-the-Range microwave oven should be mounted against and supported by a flat, vertical wall. Wall construction should be a minimum of 2" x 4" wall studding and 3/8" or more, thick drywall or plaster/lath. The oven must be attached to a minimum of one 2" x 4" wall stud.

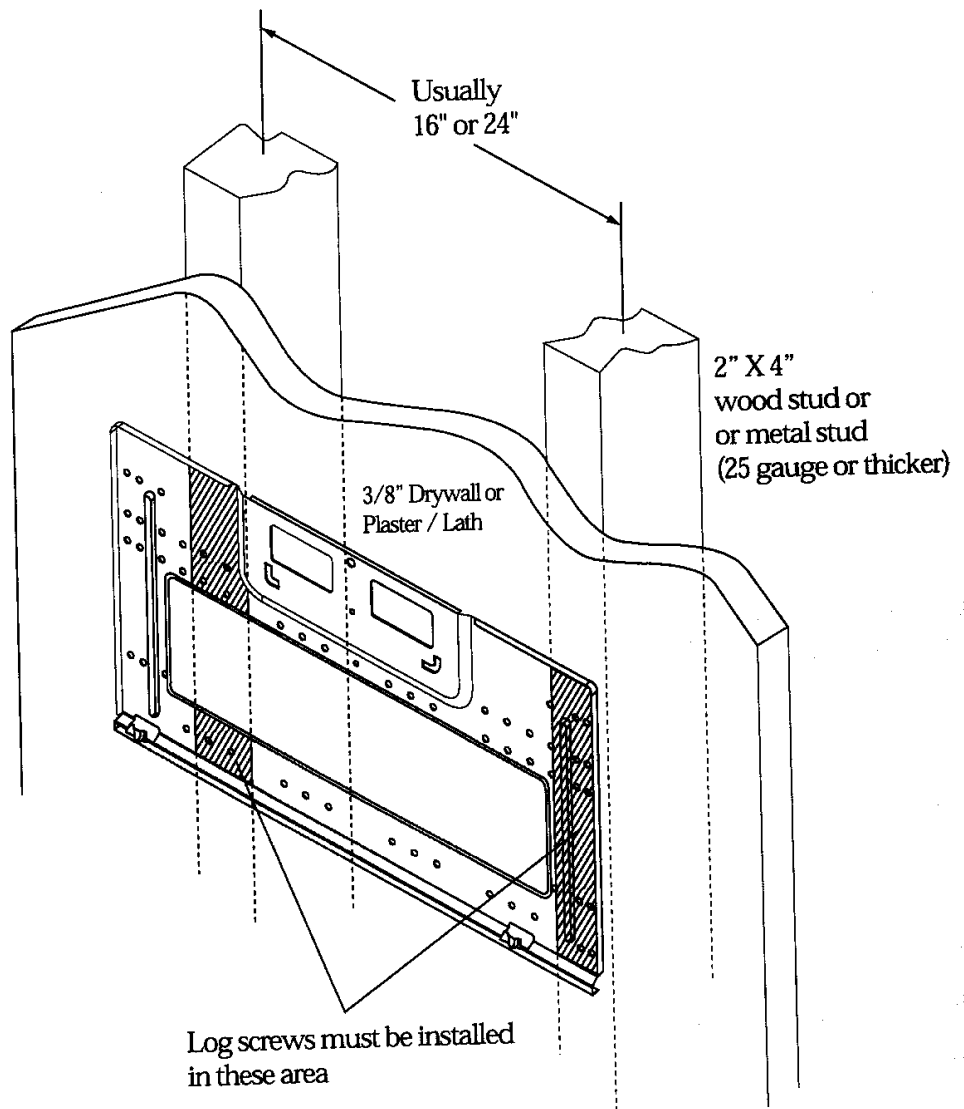
For proper installation the wall must be capable of supporting the cabinet load plus a minimum of 135 pounds, (the 85 pound weight of the microwave oven and load weight allowance of 50 pounds.) To find studs, use one of the following methods:

I. Stud finder a magnetic device which locates nails.

II. Using a hammer, tap lightly across the mounting surface to find a solid sound. This will indicate a stud installation. After locating the stud(s), the center

can be found by: Probing the wall with a small nail to find the edges of the stud and then placing a mark half way between the edges. The center of any adjacent studs should be 16" or 24" from this mark.

NOTE: Reference wall template for additional assistance.



Hood Exhaust Duct

Outside ventilation requires HOOD EXHAUST DUCT. Read the following carefully.

EXHAUST CONNECTION:
The hood exhaust has been designed to mate with a standard 3-1/4" x 10" rectangular duct.

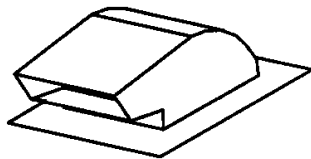
If round duct is required, a rectangular-to-round transition adapter must be used. Do not use less than a 6" diameter duct.

REAR EXHAUST: If rear or

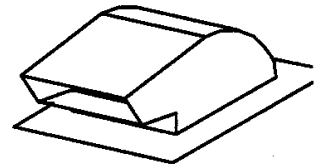
horizontal exhaust is to be used, care should be taken to align exhaust with space between studs, or wall should be prepared at the time it is constructed by leaving enough space between wall studs to accommodate exhaust. NOTE: Reference wall template.

MAXIMUM DUCT LENGTH:
For satisfactory air movement, the total duct length of 3-1/4" x 10" rectangular or 6" diameter round duct should not exceed 140 feet of equivalent duct run.

ELBOWS, TRANSITIONS, WALL AND ROOF CAPS, etc., present additional resistance to air flow and are equivalent to a section of straight duct which is longer than their actual physical size. When calculating the total duct length add the equivalent lengths of all transitions and adaptors plus the lengths of all straight duct sections. The diagram below shows the approximate feet of equivalent length of some typical ducts.



ROOF CAP(24FT)



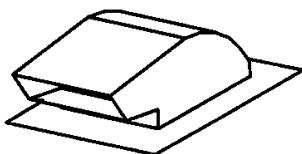
ADAPTOR (5FT)



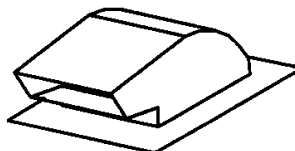
90° ELBOW(10FT)



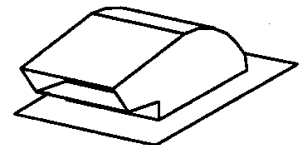
45° ELBOW(5FT)



90° ELBOW(25FT)



45° ELBOW(5FT)



WALL CAP (40FT)

Ventilation system Instructions

Your Over-the-Range microwave oven is designed for adaptation to the following three types of ventilation. Select the type of ventilation required for your installation and proceed to the appropriate section.

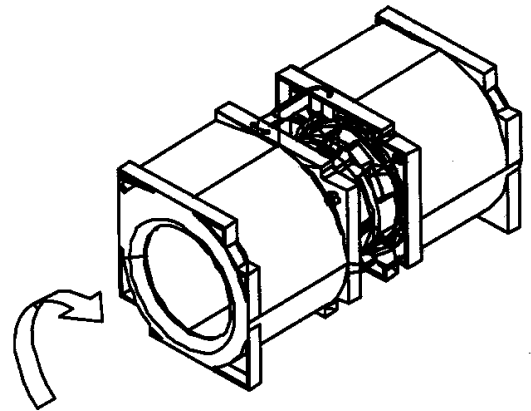
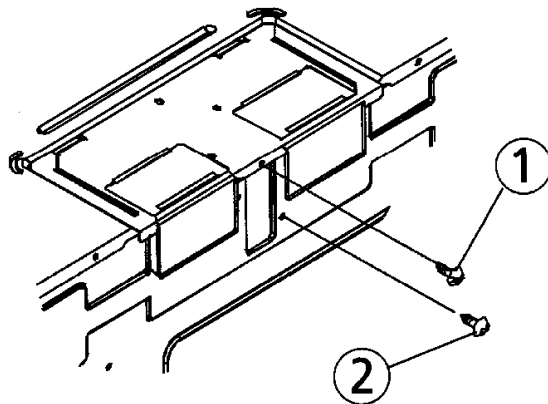
A. Horizontal Ventilation System

A-1. Ventilation motor

This blower motor has damper and your microwave oven is shipped assembled for a Recirculation Application.

Step.1

* Remove the screws (1,2) for opening the blower motor cover and save screws. Remove cover.



Step.2

- * Remove the screw (2) for Blower attachment and save screws.
- * Lift blower unit out of mounting location.

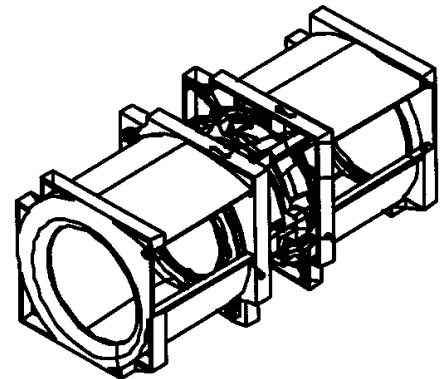
CAUTION: Do not pull or stretch blower wiring.

Step.3

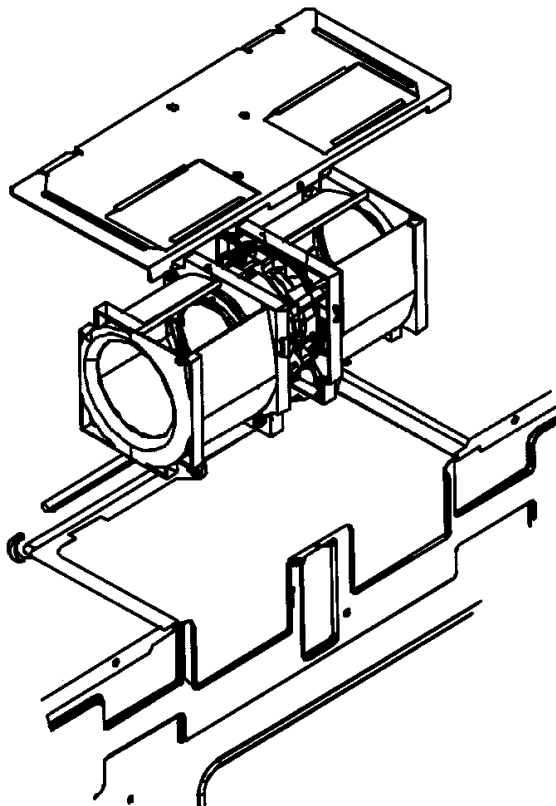
Roll the blower unit so that the fan blade openings are facing back (rear of unit).

* If you want VERTICAL, roll the blower unit so that the fan blade openings are facing upward.

CAUTION: Wires to blower unit must be routed avoid to pinching, before reinstallation of cover plate.



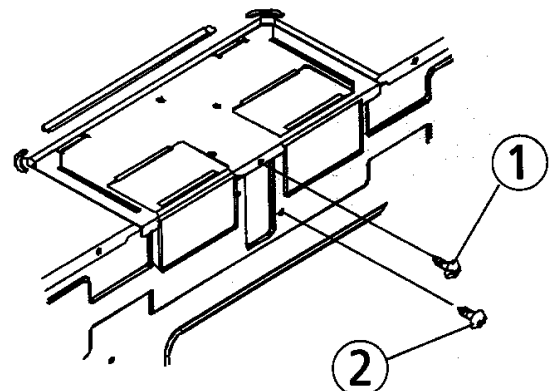
Horizontal duct configuration



Vertical duct configuration

Step.4

* Carefully match the exhaust opening location of the microwave oven and reinstall screws(1,2).



A-2. Install the Mounting Plate

Step. 1 Setup position

- Draw a line down the middle of the studs (See the Wall Construction, page 5)
- Draw a vertical line on the wall at the center of the 30" wide space.

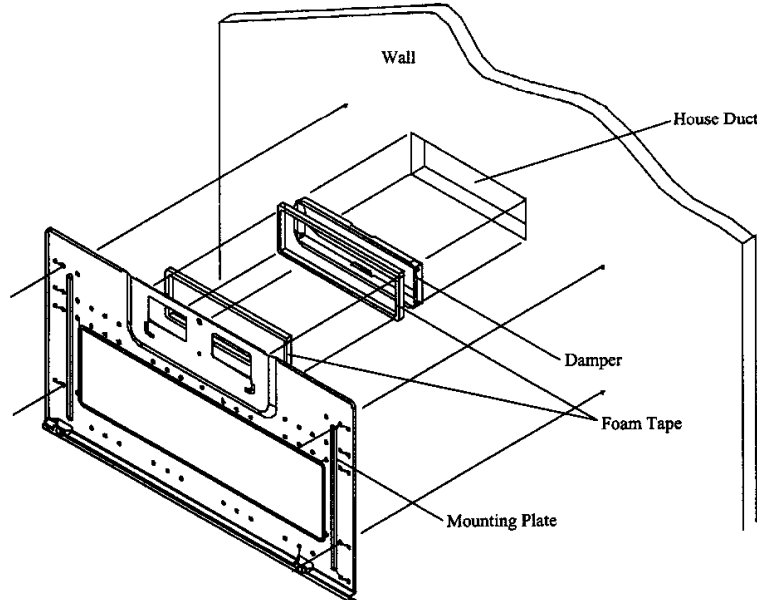
NOTE: Use the wall template for the rear wall.
Reference Wall Template prior to proceeding.
Installation of this product require TWO persons.

Step. 2 Drilling

Reference the Wall Template.

Step. 3 Install the damper

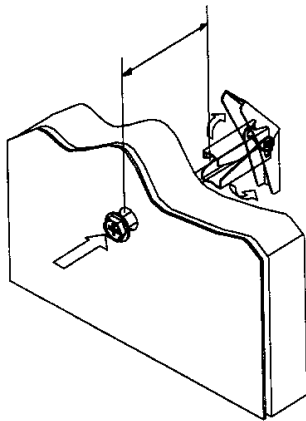
Fit the damper into the house duct. Be sure that the damper hinge is on the top and the damper swings free into the wall outlet.



Take the 28" foam tapes and remove the paper from sticky side. Press the sticky side onto the front edge of the damper. (Don't stretch the foam tape)

Step. 4 Tightening the screws

To Attach the mounting plate to the wall using the toggle bolt assemblies and/or lag screws:



a. Insert toggle bolts through mounting plate at required locations and add the spring loaded toggles. Reference wall template prior to proceeding

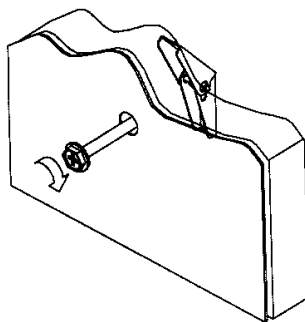
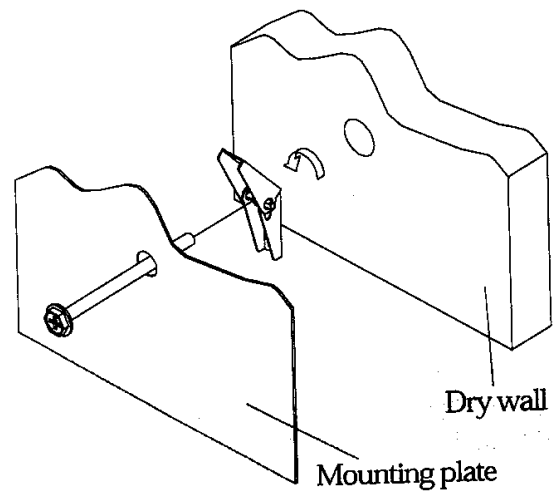
Be sure you leave space at least the thickness of the wall between the mounting plate and the end of the toggle nut, (in closed position). If you do not leave this space, the toggle nut will not open on the other side of the wall.

b. Position mounting plate on wall and insert toggle bolt assemblies through the drywall holes or start the lag-screw(s) through the wall stud(s).

c. Next, secure mounting plate to the wall by tightening toggle bolt assemblies or lag screw(s).

d. Drill 3/16" diameter lag screw hole(s), into one or more wall stud(s). (Remember, you must have at least one lag screw into a wall stud.) For stud location refer to **WALL CONSTRUCTION** see page 5.

e. Tighten the lag screw(S) into wall stud(S)



A-3. Mounting microwave oven

NOTE: IT IS VERY IMPORTANT THAT THIS OVEN BE INSTALLED BY TWO PEOPLE.

PREPARATION OF TOP CABINET

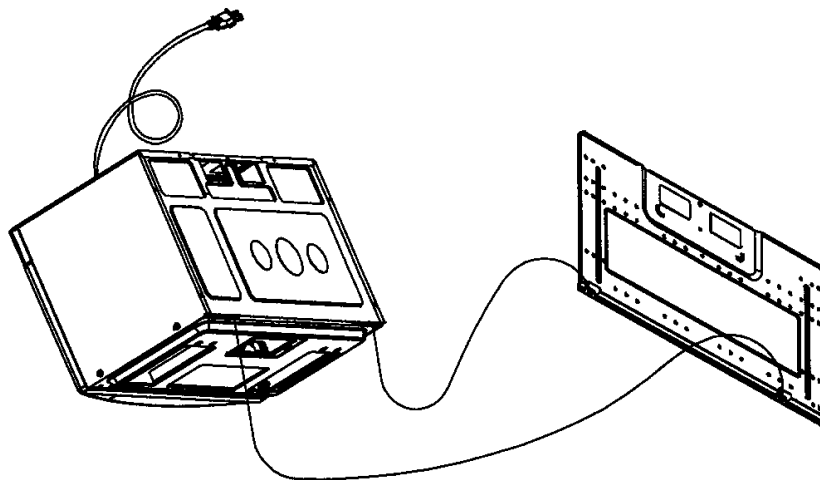
You need to drill holes for the top support screws and a hole large enough for the power cord to fit through.

- Read the instructions on the TOP CABINET TEMPLATE
- Tape it underneath the top cabinet
- Drill the holes, following the instructions on the template

NOTE: TOP CABINET TEMPLATE instruction must be complete to proceed.

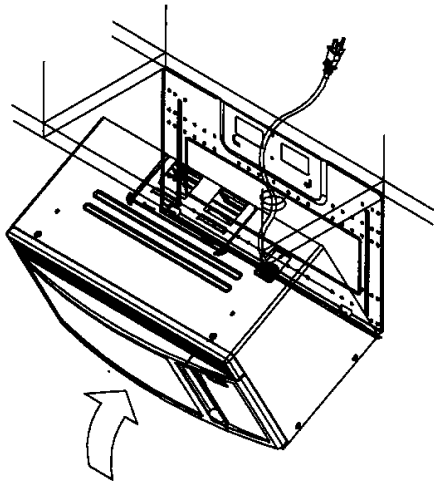
Step. 1

Protect the top of your range by placing a portion of the carton or some other heavy material over the cooking surface before mounting your oven.



Step. 2

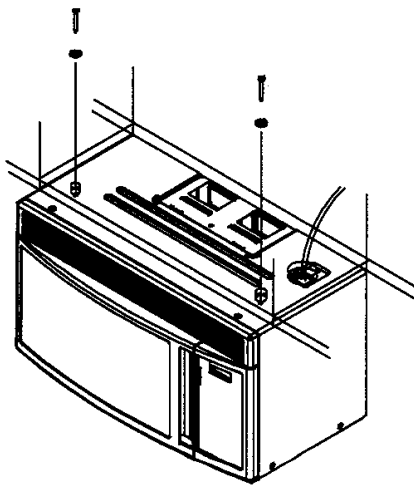
Hang the unit on the two tabs at the bottom of the mounting plate.



Step. 3

Thread power cord through the hole at the bottom of the top cabinet.

Swing the unit upward to meet the top of the mounting plate and hold secure.



Step. 4

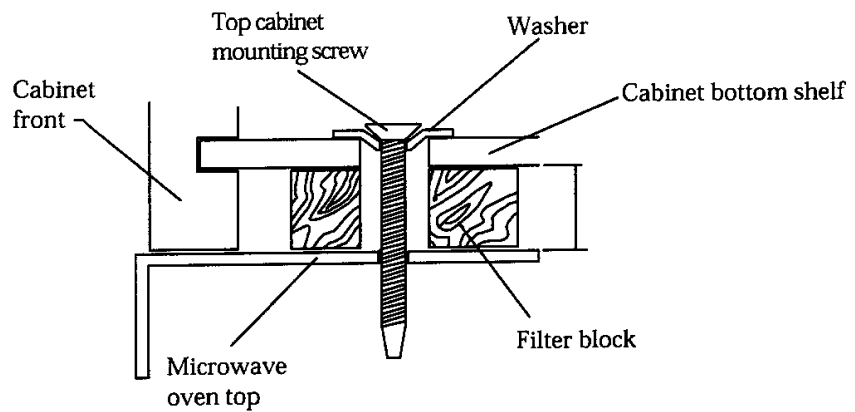
Insert the 2 bolts through 2 flat washers into holes on top cabinet floor. Tighten screws to close the gap between top cabinet and the microwave oven.

NOTE: MICROWAVE OVEN MUST BE SECURED WITH TWO MOUNTING BOLTS.

Dress power cord neatly in top cabinet.

Install the grease filters.

* Using filler block for recessed bottom cabinet Insert a bolt, with a 3/4" washer into one of the holes drilled previously in the top cabinet floor.
(D & E on Top Cabinet Template.)



B. Vertical Ventilation System

B-1. Ventilation motor

See the page 7, A-1. Ventilation motor, step 3.

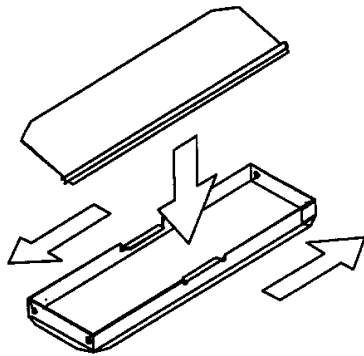
B-2. Install the mounting plate

See the page 9, A-2. Install the mounting plate.

- You need not perform the step 2 and step 4; Horizontal ventilation only.

B-3. Mounting Microwave oven

See the page 11, A-3. Mounting the Microwave oven.



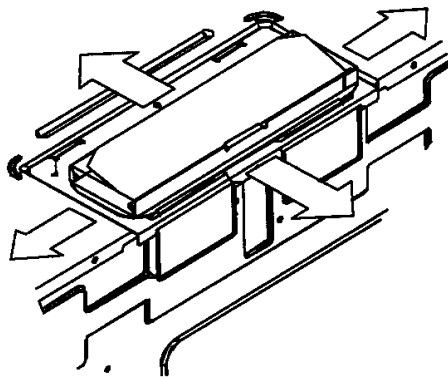
B-4. Install the Damper

For the vertical exhaust open the top cabinet and attach the damper to the microwave through the cabinet bottom. For front to back or side to side adjustment, slide the damper as needed.

With the damper out, twist the damper to fit under the flaps of the blower plate.

Replace the damper and make sure it will move easily by the force of the exhaust air. Be sure to square the corners on the hinge ends.

After the microwave oven is installed, Pull the house duct down to connect to the damper.



Install the grease filters.

C. Recirculation Ventilation System

Your over the range microwave oven has been provided with a charcoal filter for a recirculation venting application. If replacement of the charcoal filter is required, contact your dealer.

C-1. Ventilation motor

This ventilation motor has been assembled for Recirculation exhaust.

C-2. Install the Mounting plate

See the page 9, A-2. Install the mounting plate.

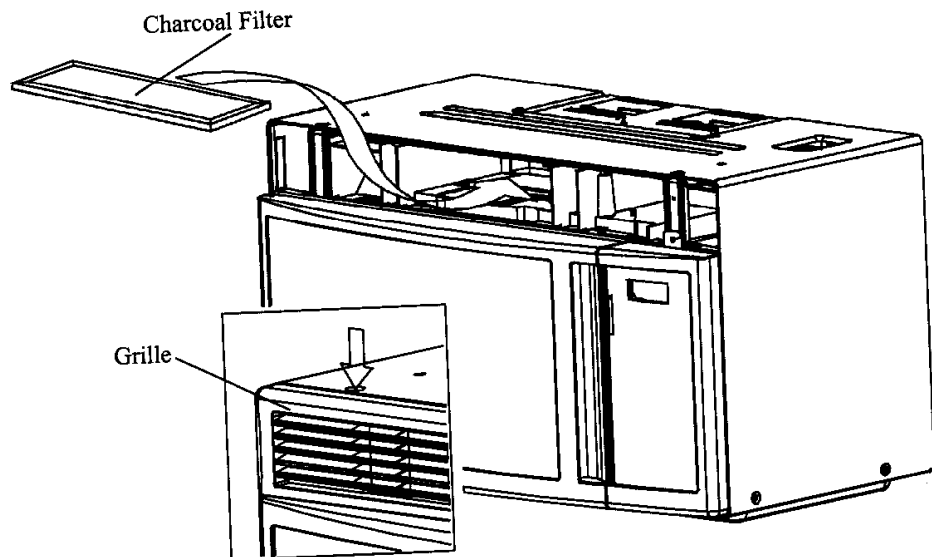
- You need not perform the step 2 and step 4; Horizontal ventilation only.

C-3. Mounting Microwave oven

See the page 11, A-3. Mounting the Microwave oven.

- * You need not use damper for recirculation.

C-4. Install the Charcoal filter



- * Remove the screws on the top of the microwave unit and remove the grille.
- * Install the charcoal filter.
- * Replace the grille and screws.
- * Install the grease filters.

Checklist for Installation

1. Make sure oven has been installed according to these instructions and top cabinet template.
 2. Remove all packing material from the oven.
 3. Plug in power cord.
 4. Read Use and Care manual.
 5. Keep installation instructions and template for the local electrical inspector's use.
-

WARNIN

Electric Shock Hazard

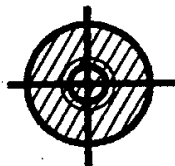
Locate any electrical circuit that could be affected by installation of this product and disconnect all electrical circuit.

Care must be taken when drilling holes. Electrical wiring may be concealed behind covering and contact with could result in electrical shock.

Failure to follow these instructions could result in electrical shock or other personal injury.



Drill a 3/16" dia. hole
if this point is over a wall stud.
Use a lag screw



CAUTION

INSTALLATION OF THIS PRODUCT
REQUIRES TWO PERSONS.



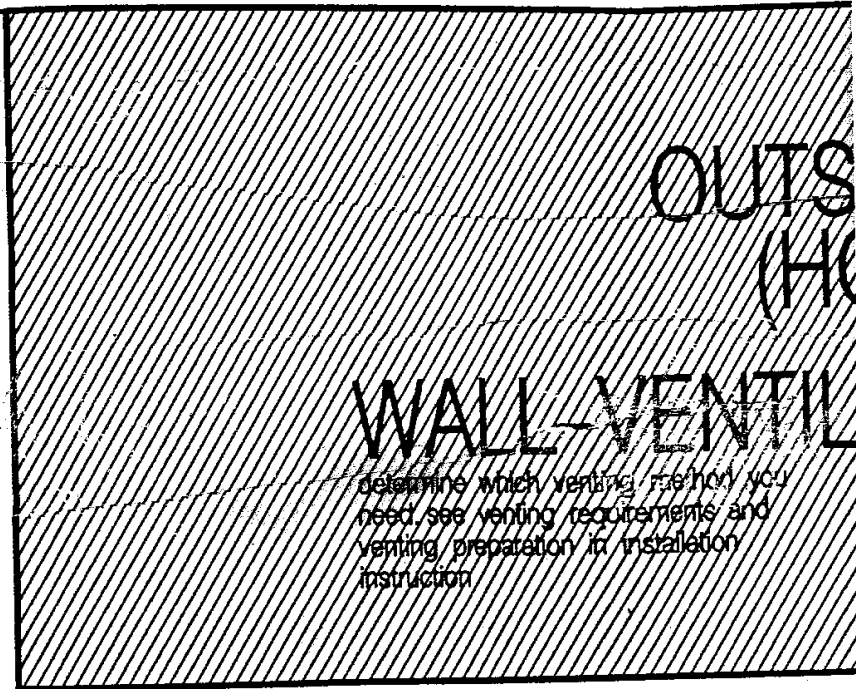
WARNING

Electric Shock Hazard

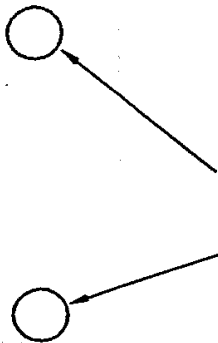
Locate any electrical circuits that could be affected by installation of this product and disconnect all electrical circuits.

Care must be taken when drilling holes. Electrical wires may be concealed behind wall covering and contact with them could result in electrical shock.

Failure to follow these instructions could result in electrical shock or other personal injury.



WALL T



E

Drill a 5/8" dia. hole
if this point is over drywall.
Use a toggle bolt

MINIMUM 30

CEILING

INSTALLATION

STEP 1. Drill 1/2" diameter holes at A, B, C and D.
if you contact a wall stud at any of these locations,
a lag screw will be installed at wall
stud location. If no stud is contacted at locations
A, B, C and D ; Drill 1/2"
diameter holes for installation of toggle bolts.

NOTE: If no stud located at A, B, C or D, insert
a minimum of one lag screw into wall stud at any
location indicated by E.

STEP 2. (skip for vertical exhaust installation)

2

OUTSIDE EXHAUST
(HORIZONTAL)

WALL-VENTILATION INSTALL

determine which venting method you
need, see venting requirements and
venting preparation in installation
instruction

Only cut out this area if you are
venting microwave oven through
wall directly behind the microwave

WALL TEMI

Drill a 5/8" dia. hole
at this point is over drywall.
Use a toggle bolt

MINIMUM 30 INCHES RE

CENTER LINE

INSTALLATION INSTRUCTIONS

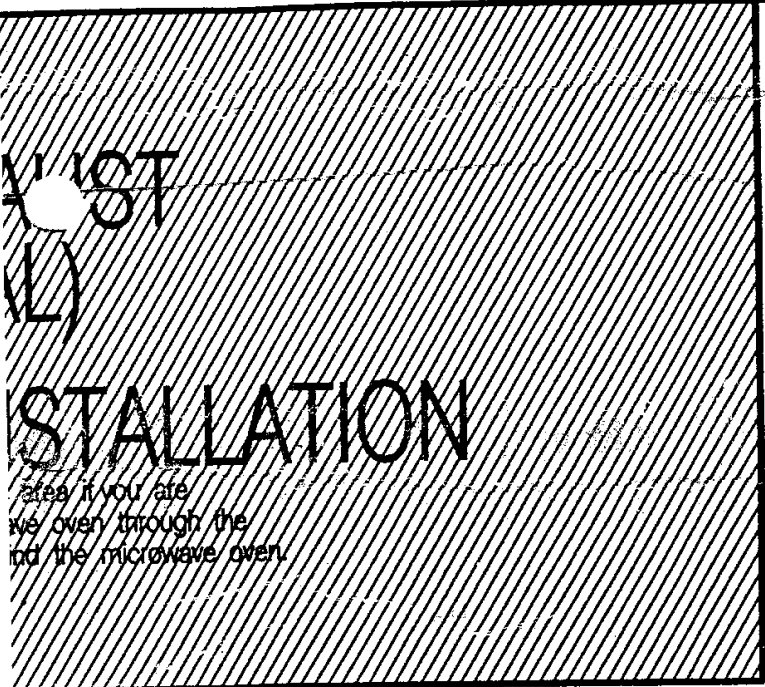
Drill 1/2" diameter holes at A, B, C and D.
If you contact a wall stud at any of these locations,
a lag screw will be installed at wall
location. If no stud is contacted at locations
A, B, C and D; Drill 1/2"
diameter holes for installation of toggle bolts.
If a wall stud located at A, B, C or D, insert
a minimum of one lag screw into wall stud at any
location indicated by E.

STEP3. Remove
the microwave
install

NOTE: TOP CAP
STEP4. Hang the
the

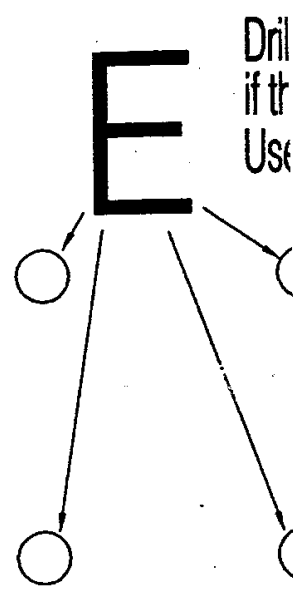
SEE
STEP5. Thread
at the

(3)



66" or more from
30" or more from the

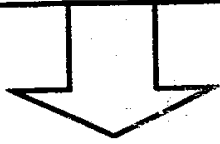
PLATE



REQUIRED

E O O O E
RUCTION

- Remove the wall template and position the microwave mount bracket over the drilled holes, install bracket with lag screws and/or toggle bolts.
- TOP CABINET TEMPLATE instruction must be complete to proceed.
- Hang the unit on the tabs at the bottom of the mounting plate.
- SEE THE INSTALLATION MANUAL, PAGE 11 - 12
- Thread powercord through the hole at the bottom of the top cabinet. swing the unit upward to meet the wall and top cabinet, hold secure.

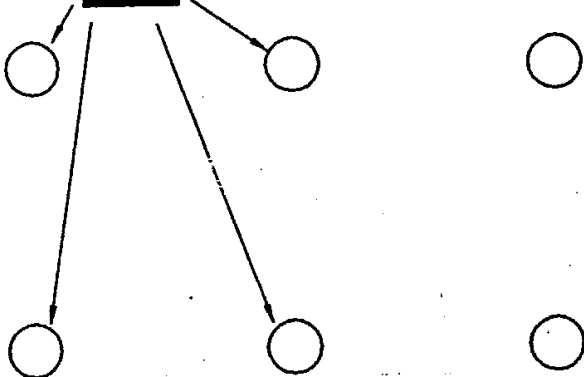


or more from the floor.

or more
from the cooking surface.

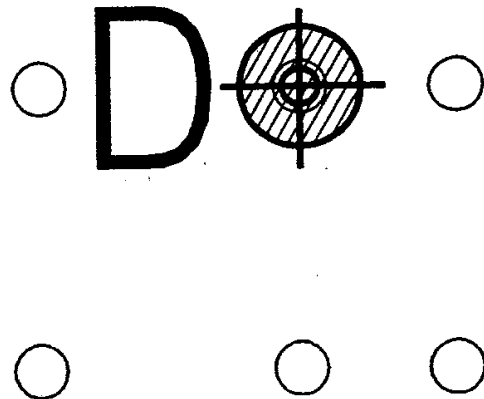
E

Drill a $\frac{5}{8}$ " dia. hole
if this point is over drywall.
Use a toggle bolt



Drill a $\frac{3}{16}$ " dia. hole
if this point is over a wall stud.
Use a lag screw

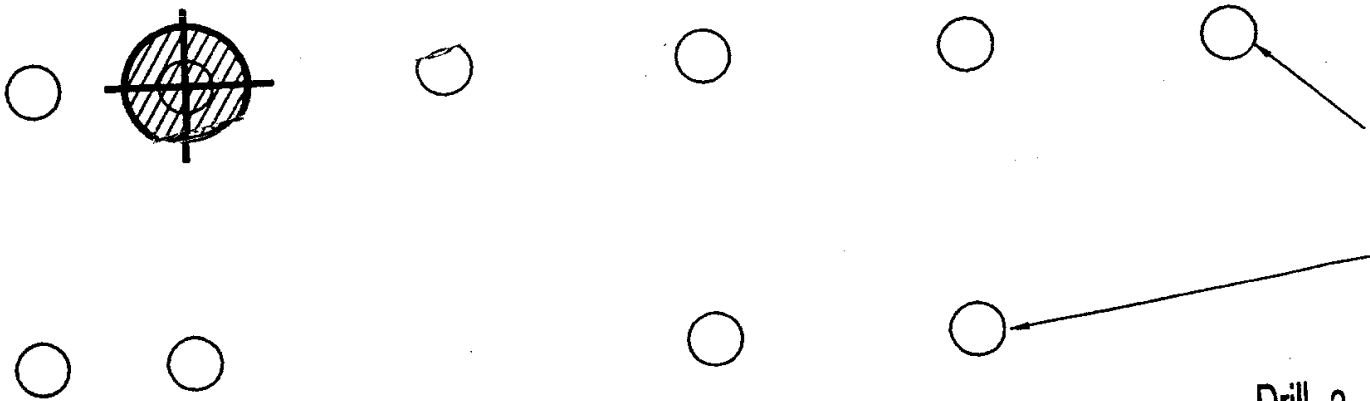
D



CAUTION
INSTALLATION OF THIS PRODUCT
REQUIRES TWO PERSONS.

B

Drill a $\frac{3}{16}$ " dia. hole
if this point is over a wall stud.
Use a lag screw



Drill a $\frac{5}{8}$ "
if this point is over a wall stud.
Use a lag screw

6

STEP1. Drill $\frac{1}{8}$ " diameter holes at A, B, C, and D.
if you contact a wall stud at any of these locations,
a lag screw will be installed at wall
stud location. If no stud is contacted at locations
A, B, C and D ; Drill $\frac{1}{8}$ "
diameter holes for installation of toggle bolts.

NOTE: If no stud located at A, B, C or D, insert
a minimum of one lag screw into wall stud at any
location indicated by E.

STEP2. (skip for vertical exhaust installation)
For horizontal exhaust installation,
Cut opening for exhaust at shaded location
marked "OUTSIDE EXHAUST(HORIZONTAL)".
Attach foam tape to backside of microwave
mount bracket to contact horizontal ducting.

E

Insert a minimum of one (1) lag screw
This oven MUST be connected to a wall stud
- this is a minimum requirement

Drill a $\frac{5}{8}$ " dia. hole
if this point is over drywall.
Use a toggle bolt

Connect marks to as

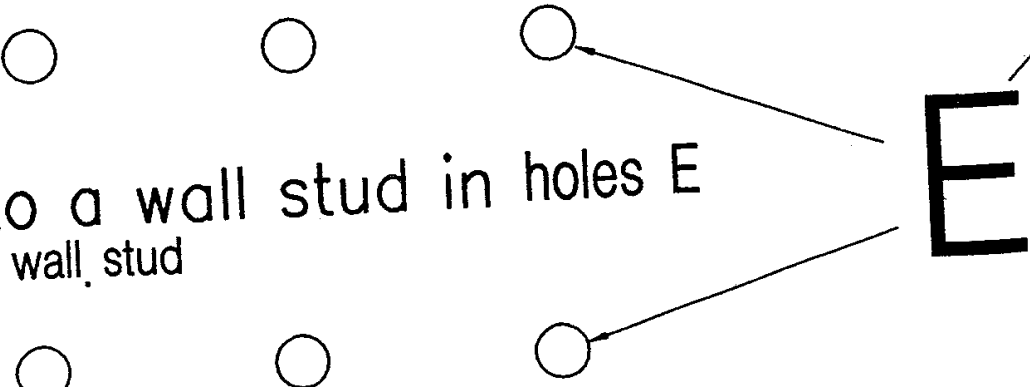
7

the microwave mount bracket over the drilled holes,
install bracket with lag screws and/or toggle bolts.
NOTE: TOP CABINET TEMPLATE instruction must be complete to proceed.
STEP4. Hang the unit on the tabs at the bottom of
the mounting plate.

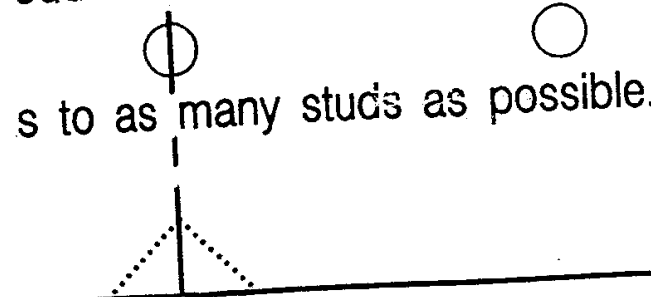
SEE THE INSTALLATION MANUAL, PAGE 11 - 12

STEP5. Thread powercord through the hole
at the bottom of the top cabinet. swing
the unit upward to meet the wall and top cabinet,
hold secure.

STEP6. Place washers on the top cabinet
Secure bolts to microwave cabinet.



(1) lag screw into a wall stud in holes E
connected to at least one wall stud
requirement.



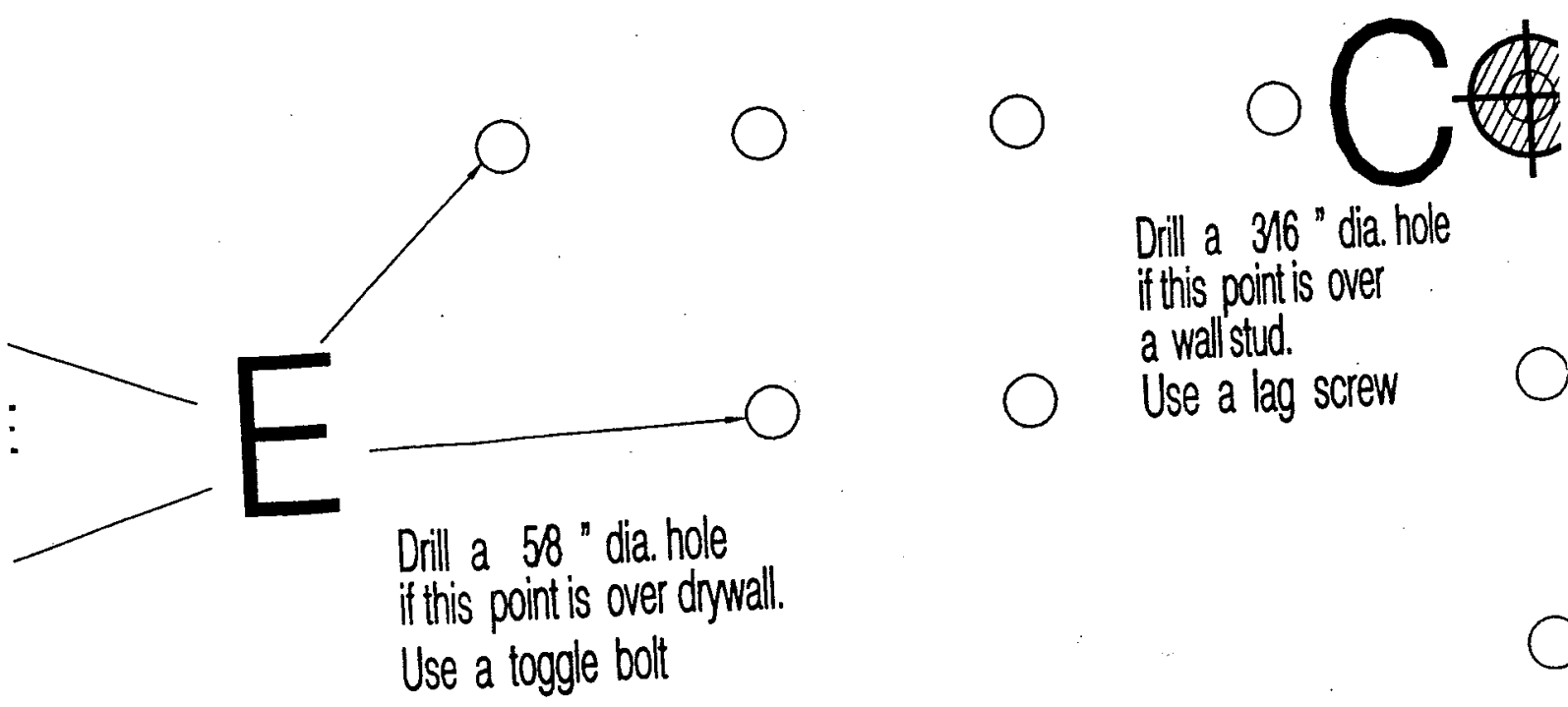
s to as many studs as possible.

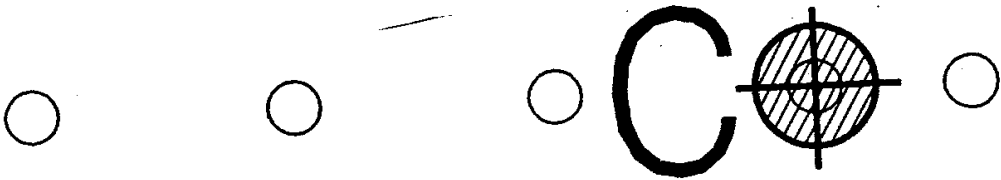
8

holes,
bolts.
complete to proceed.

1, - 12

binet,

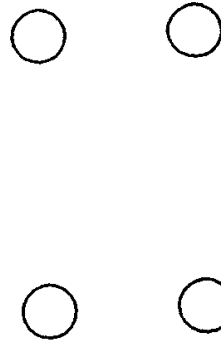




Drill a 3/16" dia. hole
if this point is over
a wall stud.
Use a lag screw

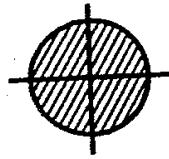


3/16" dia. hole
screw over drywall.
Use bolt



Drill $\frac{5}{8}$ " (15.875mm) dia. hole

D



filler block

use filler block when
cabinet bottom is
recessed.

TOI

B

WARNING

Electric Shock Hazard

install power supply cord
bushing around hole drilled
in metal cabinet.

Failure to follow these instructions
could result in electrical
shock or other personal injury.

6.4 mm
 $\frac{1}{4}$ "

12.7 mm
 $\frac{1}{2}$ "

19.1 mm
 $\frac{3}{4}$ "

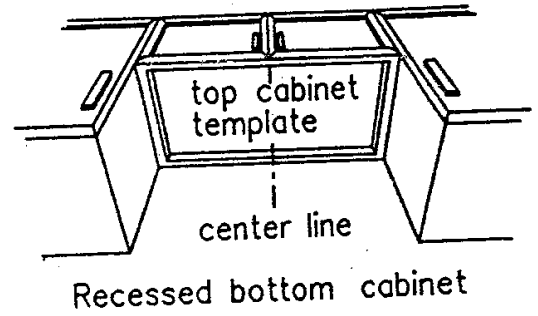
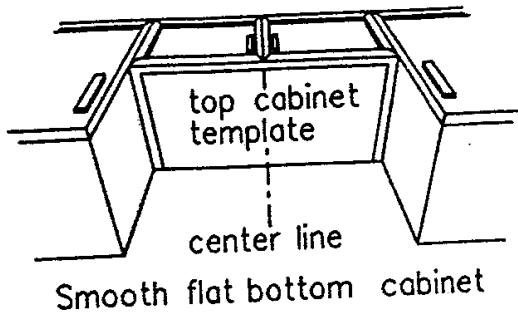
25.4 mm
1"

31.8 mm
 $1\frac{1}{4}$ "

WALL

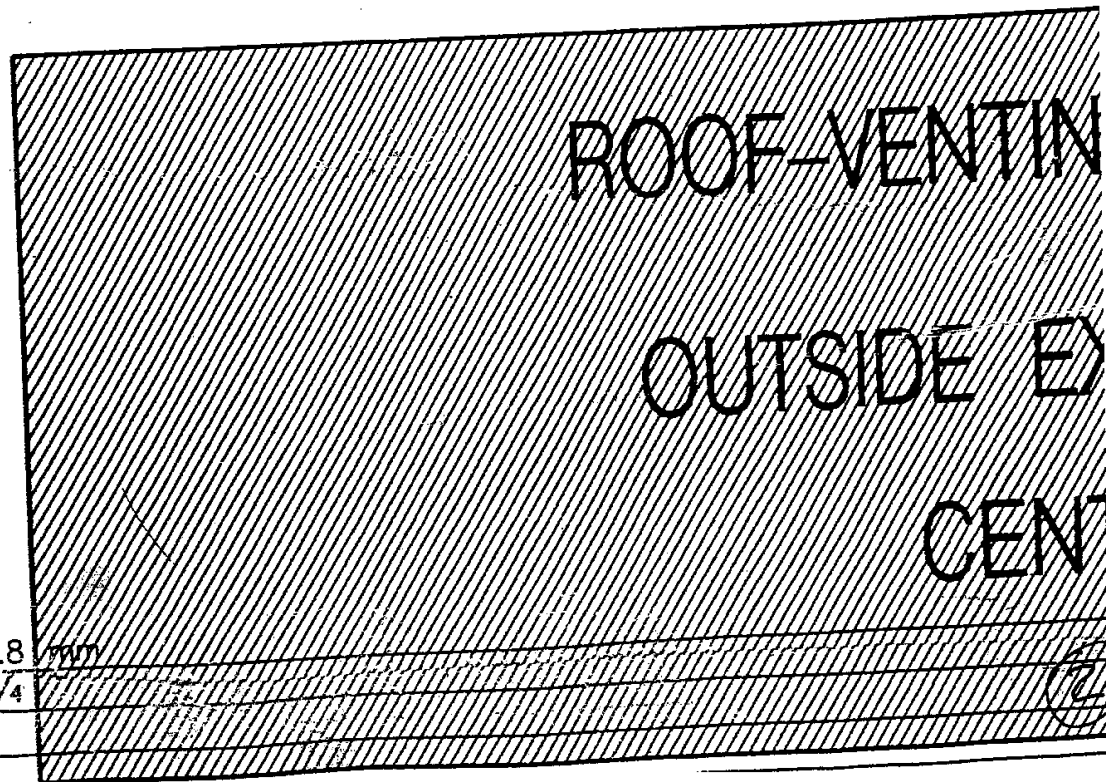
①

OP CABINE

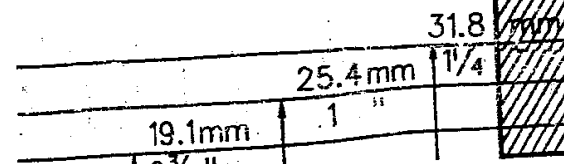


CENT

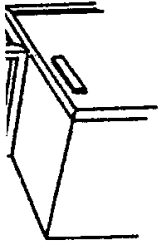
Cut out this area
if venting



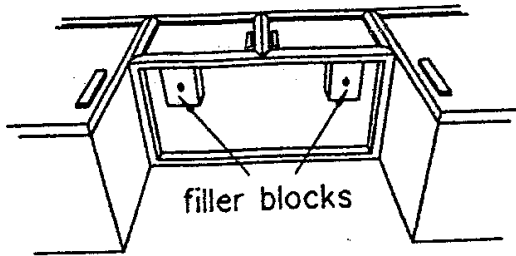
ons



JET TEMPL



abinet



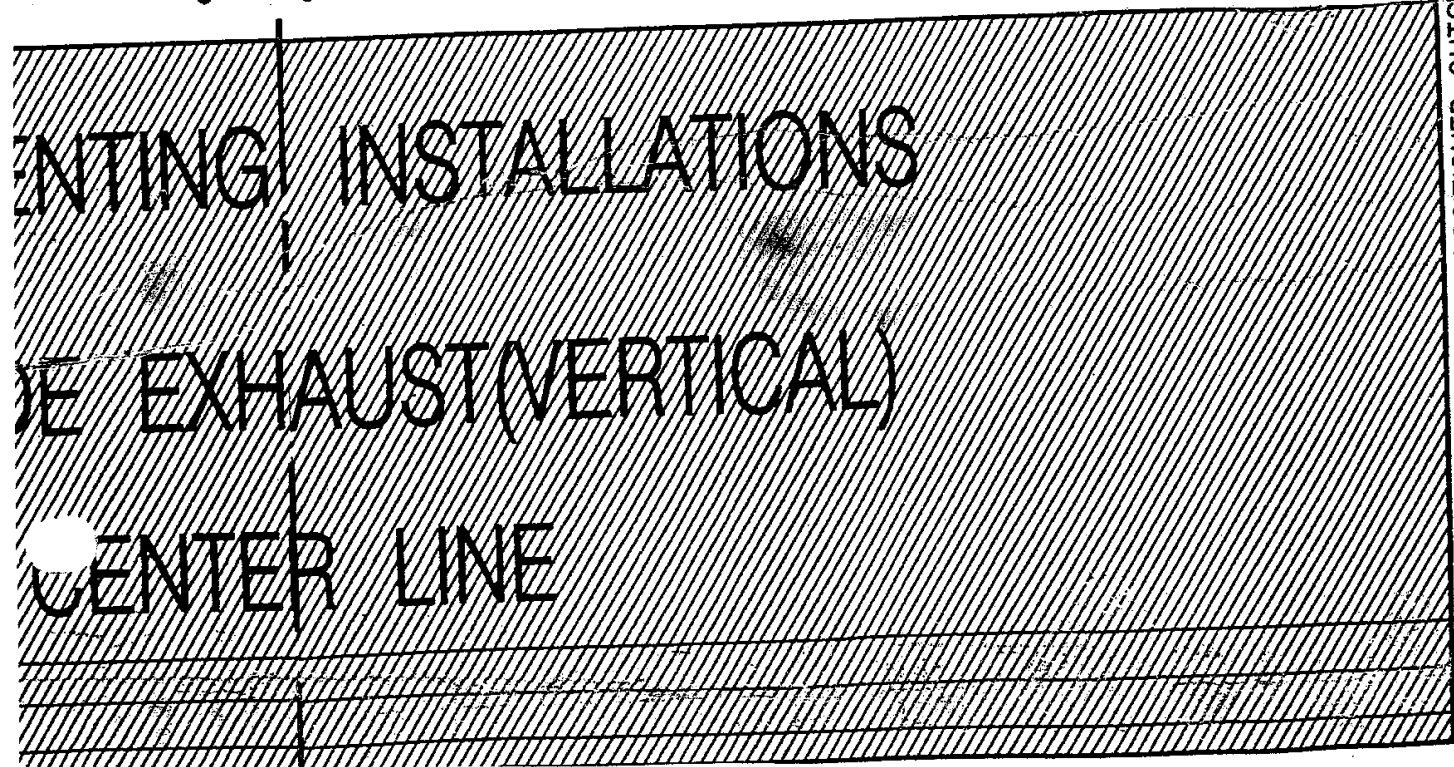
filler blocks

Filler block

INSTALLA
REQU

CENTER LINE

ut out this area of upper cabinet bottom
if venting through the roof.



VENTING INSTALLATIONS

VE EXHAUST (VERTICAL)

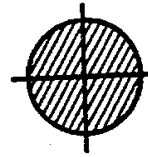
CENTER LINE

ION - IF EXHAUST ADAPTOR IS POSITIONED OUTSIDE
IMMEDIATE DIMENSION, GREASE LADEN AIR WALL
HARCE INTO HOUSE STRUCTURE.

Drill $\frac{5}{8}$ " (15.875mm) dia. hole

ATE

E



filler block

CAUTION

INSTALLATION OF THIS PRODUCT
REQUIRES TWO PERSONS.

power supply cord hole
Cut out 2" dia. hole

INSTALLATION INSTRUCTION

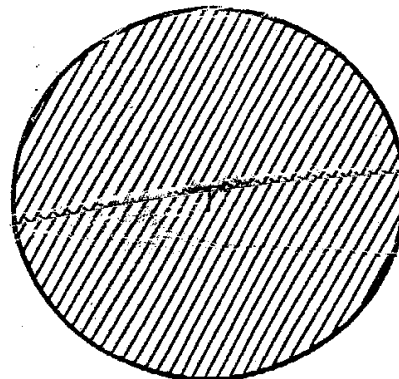
STEP 1. Cut the edges of the template at A,B and C, to fit in the recessed bottom of the top cabinet so that template will lie flat against the top cabinet.

STEP 2. Drill $\frac{5}{8}$ " (15.875mm) diameter holes at D and E.
Cut out 2" (50.8mm) diameter hole for powercord at F

STEP 3. (Skip for horizontal exhaust installation)
Cut opening for vertical exhaust location.

STEP 4. Remove the top cabinet template.

STEP 5. Attach the filler blocks so that the holes in each block line up with the corresponding holes in the cabinet. The filler blocks should be at the same levels as the bottom edge of the top cabinet.



For metal cabinet, put the tape on edge of hole to protect powercord from damage

F

6.4 mm
 $\frac{1}{4}$ "

12.7 mm
 $\frac{1}{2}$ "

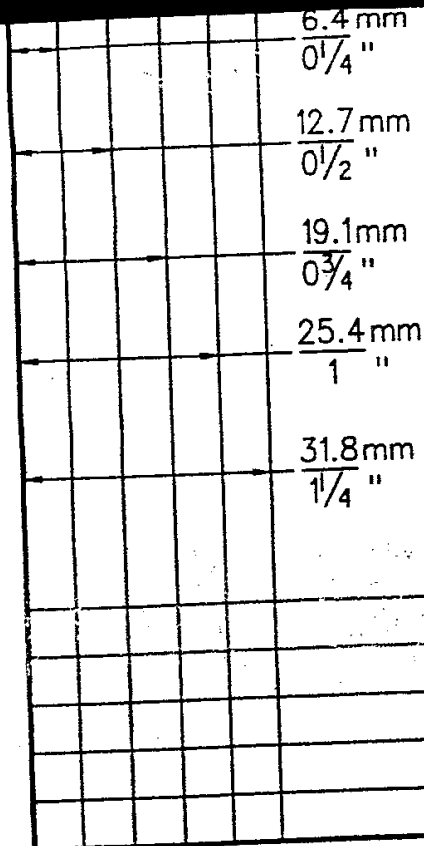
19.1 mm
 $\frac{3}{4}$ "

25.4 mm
1"

31.8 mm
 $1\frac{1}{4}$ "

WALL

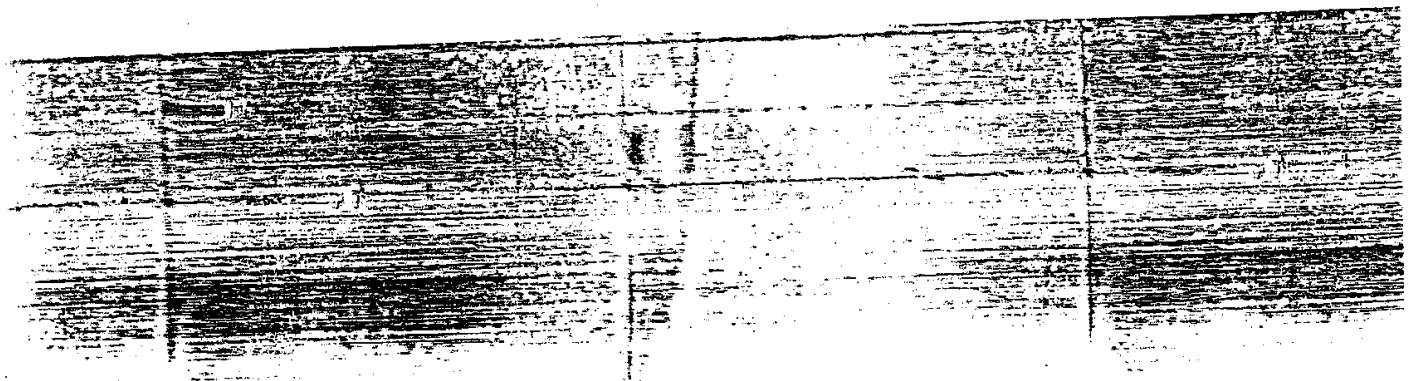
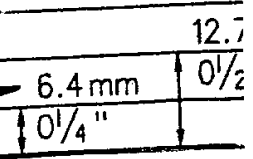
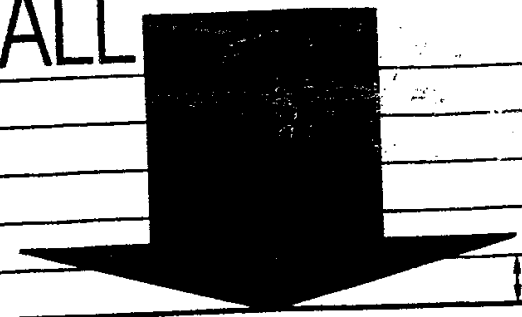




bushing around hole drilled
in metal cabinet.

Failure to follow these instructions
could result in electrical
shock or other personal injury.

WALL



5

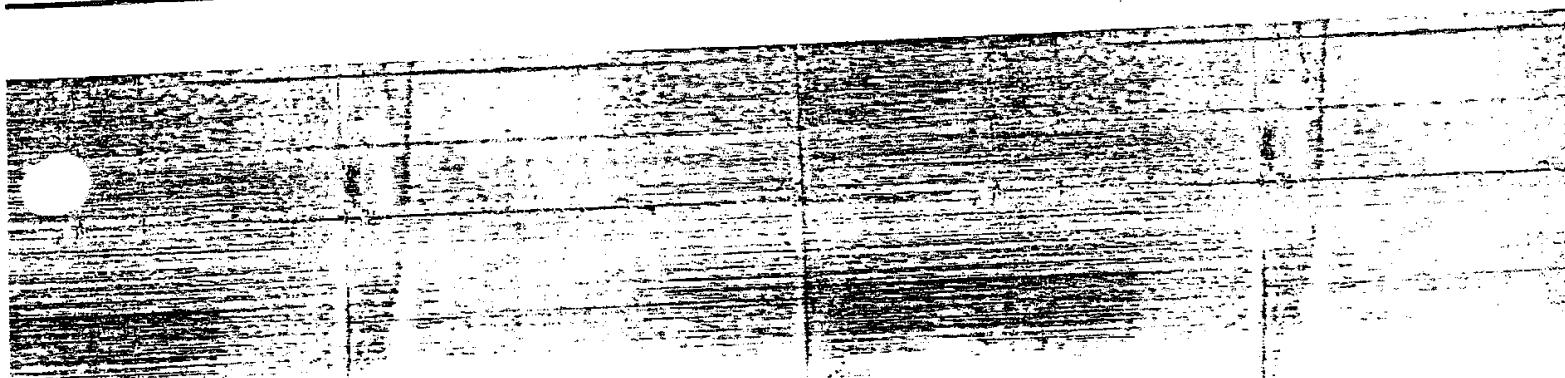
drilled

actions
trical
al injury.

ROOF-VE

OUTSIDE

			31.8 mm
		25.4 mm	1 1/4 "
	19.1 mm	1 "	
	12.7 mm	0 3/4 "	
.4 mm	0 1/2 "		
1/4 "			



6

OF-VENTING! INSTALLATIONS

OUTSIDE EXHAUST (VERTICAL)

CENTER LINE

7

CAUTION - IF EXHAUST ADAPTOR IS POSITIONED
RECOMMENDED DIMENSION, GREASE LADEN AIR W/AL
DISCHARGE INTO HOUSE STRUCTURE.

in each block line up with the corresponding
holes in the cabinet. The filler blocks should
be at the same levels as the bottom edge
of the top cabinet.

For metal cabinet, put the tape
on edge of hole to protect
powercord from damage

WALL



68

lock line up with the corresponding
the cabinet. The filler blocks should
same levels as the bottom edge
p cabinet.

For metal cabinet, put the tape
on edge of hole to protect
powercord from damage

12.7 mm

$0\frac{1}{2}$ "

19.1 mm

$0\frac{3}{4}$ "

25.4 mm

1 "

31.8 mm

$1\frac{1}{4}$ "

WALL



9